

Appl. No. 10/708,641
Amtd. dated November 10, 2005
Reply to Office action of August 24, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

5 Listing of Claims:

Claim 1 (original): A liquid crystal display panel comprising:

- a first substrate;
- a second substrate having an active region;
- a sealant positioned on the second substrate and surrounding the active region for 10 adhering the second substrate to the first substrate;
- a spacer wall positioned on the second substrate and between the sealant and the active region, the spacer wall having at least one liquid crystal injected opening and at least one spacer block positioned near the liquid crystal injected opening; and
- 15 a liquid crystal layer positioned between the first substrate, the second substrate, and the sealant.

Claim 2 (original): The liquid crystal display panel of claim 1 wherein the second substrate further comprises a peripheral region surrounding the active region and a thin 20 film layer located on the peripheral region where both the sealant and the spacer wall are located.

Claim 3 (original): The liquid crystal display panel of claim 2 wherein the thin film layer is an anti-reflective layer.

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Claim 4 (original): The liquid crystal display panel of claim 2 wherein the thin film layer is a first alignment layer.

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Claim 5 (original): The liquid crystal display panel of claim 4 further comprising:

a second alignment layer positioned on the first substrate and opposite to the first alignment layer, wherein the first alignment layer and the second alignment layer are both vertical alignment (VA) layers.

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Claim 6 (original): A liquid crystal display panel comprising:

a first substrate;
a second substrate having an active region, a peripheral region surrounding the active region, and a thin film layer located on the peripheral region;
10 a sealant positioned on the peripheral region of the second substrate and surrounding the active region for adhering the second substrate to the first substrate;
a spacer wall positioned on the peripheral region of the second substrate and between the sealant and the active region; and
15 a liquid crystal layer positioned between the first substrate, the second substrate, and the sealant.

Claim 7 (original): The liquid crystal display panel of claim 6 wherein the thin film layer is an anti-reflective layer.

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Claim 8 (original): The liquid crystal display panel of claim 6 wherein the thin film layer is a first alignment layer.

Claim 9 (original): The liquid crystal display panel of claim 8 further comprising:

25 a second alignment layer positioned on the first substrate and opposite to the first alignment layer, wherein the first alignment layer and the second alignment layer are both vertical alignment layers.

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Claim 10 (original): The liquid crystal display panel of claim 6 wherein the spacer wall comprises at least one liquid crystal injected opening for allowing liquid crystal molecules to be injected into space between the first substrate and the second substrate.

- 5 Claim 11 (currently amended): A liquid crystal display panel comprising:
 a first substrate;
 a second substrate having an active region located on a central portion of the second substrate;
 at least a thin film layer positioned on the second substrate and surrounding the
10 active region;
 a sealant positioned on the thin film layer for adhering the second substrate to the first substrate; and
 a liquid crystal layer positioned between the first substrate, the second substrate, and
 the sealant, only a portion of the liquid crystal layer being overlapped by the
15 thin film layer.

Claim 12 (original): The liquid crystal display panel of claim 11 wherein the thin film layer is an anti-reflective layer.

- 20 Claim 13 (original): The liquid crystal display panel of claim 11 wherein the thin film layer is a first alignment layer.

Claim 14 (original): The liquid crystal display panel of claim 13 further comprising:
 a second alignment layer positioned on the first substrate and opposite to the first
25 alignment layer, wherein the first alignment layer and the second alignment layer are both vertical alignment layers.

Claim 15 (original): A liquid crystal on silicon (LCOS) display panel comprising:

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- a first substrate;
 - a second substrate having an active region;
 - a sealant positioned on the second substrate and surrounding the active region for adhering the second substrate to the first substrate;
 - 5 a spacer wall positioned on the second substrate and between the sealant and the active region; and
 - a liquid crystal layer positioned between the first substrate, the second substrate, and the sealant.
- 10 Claim 16 (original): The liquid crystal on silicon display panel of claim 15 wherein the second substrate further comprises a peripheral region surrounding the active region and a thin film layer located on the peripheral region where both the sealant and the spacer wall are located.
- 15 Claim 17 (original): The liquid crystal on silicon display panel of claim 16 wherein the thin film layer is an anti-reflective layer.
- Claim 18 (original): The liquid crystal on silicon display panel of claim 16 wherein the thin film layer is a first alignment layer.
- 20 Claim 19 (original): The liquid crystal on silicon display panel of claim 18 further comprising:
 - a second alignment layer positioned on the first substrate and opposite to the first alignment layer, wherein the first alignment layer and the second alignment
- 25 layer are both vertical alignment layers.
- Claim 20 (original): The liquid crystal on silicon display panel of claim 15 wherein the spacer wall comprises at least one liquid crystal injected opening for allowing liquid

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crystal molecules to be injected into space between the first substrate and the second substrate.

Claim 21 (original): The liquid crystal on silicon display panel of claim 20 wherein the 5 spacer wall further comprises at least one spacer block positioned near the liquid crystal injected opening.

Claim 22 (new): The liquid crystal display panel of claim 1 wherein the spacer wall 10 comprises inorganic materials or photoresist materials, such as silicon dioxide or silicon nitride.

Claim 23 (new): The liquid crystal display panel of claim 1 wherein the spacer block comprises inorganic materials or photoresist materials, such as silicon dioxide or silicon nitride.

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Claim 24 (new): The liquid crystal display panel of claim 1 wherein the spacer wall separates the liquid crystal layer from the sealant.

Claim 25 (new): The liquid crystal display panel of claim 2 wherein a portion of the thin 20 film layer is located on a portion of the active region and the thin film layer obstructs light so that the peripheral region and the portion of the active region are kept in a dark state.

Claim 26 (new): The liquid crystal display panel of claim 6 wherein the spacer wall 25 comprises inorganic materials or photoresist materials, such as silicon dioxide or silicon nitride.

Claim 27 (new): The liquid crystal display panel of claim 6 wherein the spacer wall

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separates the liquid crystal layer from the sealant.

Claim 28 (new): The liquid crystal display panel of claim 6 wherein the thin film layer obstructs light so that the peripheral region is kept in a dark state.

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Claim 29 (new): The liquid crystal display panel of claim 11 wherein the thin film layer obstructs light so that the peripheral region and the portion of the liquid crystal layer overlapped by the thin film layer are kept in a dark state.

10 Claim 30 (new): The liquid crystal display panel of claim 11, wherein a portion of the thin film layer is positioned in the active region.

15 Claim 31 (new): The liquid crystal on silicon display panel of claim 15 wherein the spacer wall comprises inorganic materials or photoresist materials, such as silicon dioxide or silicon nitride.

Claim 32 (new): The liquid crystal on silicon display panel of claim 15 wherein the spacer wall separates the liquid crystal layer from the sealant.

20 Claim 33 (new): The liquid crystal on silicon display panel of claim 16 wherein the thin film layer obstructs light so that the peripheral region is kept in a dark state.

25 Claim 34 (new): The liquid crystal on silicon display panel of claim 21 wherein the spacer block comprises inorganic materials or photoresist materials, such as silicon dioxide or silicon nitride.

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